

REMARKS

The Office Action of September 7, 2006 has been studied carefully. Claims 1-14 remain in this application. Claims 1 and 9 have been amended to better define the invention. Specifically, amended claim 1 introduces the feature of a test element “having a wave propagating surface” to provide proper antecedent basis with respect to the remainder of claim 1. In addition, the feature of an “internal reference standard having a constant spectral response” has been added to better define the invention and to more clearly distinguish the invention over the prior art. These features find ample support throughout the specification and drawings, with exemplary support being found in paragraphs 40, 46-47 of the specification as originally filed. Moreover, the phrase “an edge of said” has been introduced to claim 1 for reasons of clarity. This feature finds support in paragraph 45 of the specification as originally filed. Additional changes to claim 1 have been introduced for reasons of clarity. Also, it is noted that the word “and” has been introduced in claim 9 for grammatical reasons. No new matter has been added.

Having regard to the foregoing amendments and the following remarks, reconsideration of this application is respectfully requested.

Examiner is thanked for his expeditious notice that independent claim 9 and dependent claims 10-14 contain allowable subject matter. However, in the Office Action, Examiner has rejected base claim 9 under 35 USC §101, alleging that the claim is directed to non-statutory subject matter. In particular, Examiner alleges that the outcome of the method steps to claim 9 does not constitute a tangible result. Applicant respectfully traverses Examiner’s rejection.

Initially, Applicant respectfully submits that the Office Action contains very little in the way of factual analysis or specific articulation of the Examiner’s basis for questioning the subject matter eligibility of claim 9. However, in order to respond to Examiner’s rejection, Applicant would like to direct Examiner’s attention to the functional statement in the preamble to claim 9 and the results statement of step (g). For example, the preamble to claim 9 specifies a useful method for measuring analyte concentration in chemical or biological substances. And step (g) specifies

the tangible result of utilizing said light absorption response to detect and quantify analyte concentration in said substance. Applicants submit that these claim elements are clearly directed to statutory subject matter, and that the final result achieved by step (g)—namely detecting and quantifying analyte concentration in substances—constitutes a useful, concrete, and tangible result.

Accordingly, Applicants respectfully submit that claim 9 complies with the subject matter eligibility requirement of 35 USC §101. If Examiner persists in his rejection of claim 9 under 35 USC §101, he is respectfully requested to point out with particularity how such claimed subject matter falls outside all of the statutory categories in a second non-final Office Action so as to provide Applicants with a fair opportunity to rebut that challenge and to factually demonstrate that claim 9 in fact complies with the subject matter eligibility requirement of 35 USC §101. Based on the foregoing, Applicants respectfully submit that independent claim 9, and dependent claims 10-14 are in proper form for allowance.

With respect to point 2 of the Office Action, Examiner rejected claim 1 under 35 USC §102b, alleging that the claim is anticipated by Slovacek et al. (U.S. Patent 5,340,715, hereinafter “Slovacek”). Applicants respectfully traverse Examiner’s rejection and submit that Slovacek fails to teach or disclose an “internal reference standard having a constant spectral response” as recited in amended claim 1. Unlike the present invention, the reference material in Slovacek reacts to analyte with a specific spectral response depending on the quantity and presence of analyte in the sample—i.e. when the reference material is excited by a predetermined excitation wavelength (see, e.g., column 5, lines 29-36; Table I). In other words, the reference material of Slovacek provides a predetermined spectral response which indicates the actual excitation radiation delivered to fluorescent tags bound to the reactant coating (see col. 10, line 67 – col. 11, line 2).

By comparison, the internal reference standard of the present invention is an inert material which does not react to any particular analyte in the sample. As such, the spectral profile of applicants’ reference material remains constant before and after the test element is exposed to a sample, and does not depend upon the quantity and/or presence of analyte in the sample. Unlike

Slovacek, the internal reference standard of the present invention maintains a constant spectral response independent of the presence of analytes (see paragraph 40 of the specification as originally filed). Accordingly, the reference material of Slovacek functions in a substantially different way than the reference material of the present invention because it does not provide a “constant spectral response” as required in amended claim 1. In fact, the only similarity between the two reference materials is that the term “reference” is used coincidentally in both inventions.

Therefore, since Slovacek fails to provide an internal reference standard having a constant spectral response as defined in amended claim 1, Applicants respectfully submit that the present invention is patentably distinct from Slovacek. Accordingly, withdrawal of Examiner’s rejection of claim 1 is respectfully requested.

It is also important to note that Slovacek differs from the present invention because Slovacek requires at least two wave propagating surfaces to detect and quantify analytes (see Abstract, Claims). Unlike the present invention, Slovacek provides an arrangement which requires two propagating surfaces for radiation to propagate along the waveguide between the first and second surfaces by total internal reflection to propagate the input signal (see Abstract; col. 2, lines 33-35). By comparison, the present invention only requires a single “wave propagating surface” to detect and quantify analytes.

Anticipation under 35 USC §102 requires the existence of a single prior art reference which discloses each and every feature of the claimed subject matter. For at least the above reasons, Applicant respectfully submits that Slovacek fails to do so. Therefore, withdrawal of Examiner’s rejection of claim 1 is respectfully requested.

It is important to note that a skilled artisan would not be motivated to modify Slovacek to arrive at applicants “single” propagating surface because to do so would mean disregarding an essential feature of Slovacek which is to provide at least two wave propagating surfaces for measurement of analytes (see Claims, Abstract). Slovacek actually teaches away from the present invention since Slovacek fails to provide any hint or suggestion of providing an internal reference

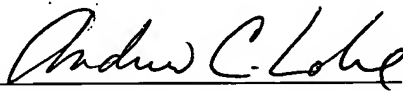
standard having a constant spectral response to reduce the optical and mechanical coupling requirements for the device. By comparison, the wave propagating surface of the present invention overcomes the deficiencies of Slovacek by providing cost advantage in manufacturing and assembly of the device with minimal impact on the accuracy of testing results (see paragraphs 40-42 of the specification as originally filed).

With respect to point 3 of the Office Action, Examiner rejected claims 2-6 and 7-8 under 35 USC §103a, alleging that the claims are unpatentable over Slovacek in view of Boss (U.S. Patent 7,022,288). Applicants respectfully traverse Examiner's rejection and submit that claims 2-6 and 7-8 all depend, in one way or another, from independent claim 1 and therefore contain all the limitations found therein. By this dependency, the invention as set forth in these dependent claims is also not taught, anticipated, or rendered obvious for the reasons discussed previously in conjunction with independent claim 1.

Conclusion

Applicants respectfully submit that all solicited claims distinguish over the cited art and comply with the applicable patent statutes. As such, allowance of the claims is respectfully requested. Examiner is invited to contact the undersigned if, during the course of reconsideration of this application, any questions or comments should arise.

Respectfully submitted,
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